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DEPT. OF BOTANY
UNIV. OF WASHINGTON

RANCHO SANTA ANA BOTANIC GARDEN

LEAFLETS
of
POPULAR INFORMATION

No. 15

April 1939

LUPINUS HALLII

BUSH LUPINE

Prepared
by
RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA

Santa Ana Canyon
Orange County
California

LUPINUS HALLII

BUSH LUPINE

Leguminosae

Pea Family

Shrubby evergreen perennial 3-5 ft. in height and spread, woody stems often several inches in diam. and clothed with brown shreddy bark. Young stems and leaves densely appressed-silky, giving the plant a silvery-gray cast. Lower leaves with petioles 4-6 in. long, the upper shorter. Leaflets 6-8, oblanceolate, about $1\frac{1}{2}$ in. long, $\frac{3}{8}$ in. wide, nearly alike on both surfaces. Flowers borne on stems $1\frac{1}{2}$ -2 ft. long, well above the leaves, the flowering portion (raceme) often over 1 ft. long, bearing 40-60 flowers arranged in somewhat obscure whorls. Each flower subtended by a small caducous bract; pedicels $\frac{1}{4}$ in. long; calyx 2-lipped, the upper bifid, the lower entire, with two small bractlets between the lips. Corolla orchid, lavender, bluish or white, about $\frac{3}{4}$ in. long; banner reflexed, the two halves obscuring the upper calyx lips; wings practically covering the arcuate keel, ciliate on its upper margins and usually so below near the base; stamens 10, monodelphous, lower portion of filaments fused into a tube around the ovary; anthers of two sorts, 5 with nearly globose pollen sacs, and 5 with linear sacs. Ovary 1-celled, the beak prolonged into a slender style capped with a tuft of hairs on its stigmatic portion. Seed pod (legume) $1\frac{1}{2}$ -2 inches long, $\frac{1}{2}$ in. wide, flattened, containing 5-8 flattened, nearly orbicular, grayish mottled, hard-coated seeds about $\frac{3}{16}$ inch long. Cotyledons petioled in germination.

The genus Lupinus (derived from the Latin for wolf, because the plants were erroneously thought to rob the soil of its fertility) contains over 100 species distributed on all continents except Australia, but is most abundant in North America. California has over 50 species, some of which are to be found in every part of the state. Many California species are annuals and are abundant over hundreds of square miles. Some of the perennials are inhabitants of wet meadows, but the largest percentage of species grow in coarse somewhat dry soils. About 6 species are considered shrubs and are of some horticultural interest when planted under proper conditions.

Lupinus Hallii was named in 1910 in honor of the late Dr. H. M. Hall, California botanist, by Prof. L. R. Abrams of Stanford University. The original specimens had been collected by Hall in 1901 in Reche Cañon, near San Bernardino. As we under-

stand this species, it ranges from the foothills of the San Gabriel, San Bernardino and San Jacinto Mts. to parts of San Diego Co., and westward to Orange Co., where it has followed the Santa Ana River as far as Anaheim. Lupinus Hallii has been confused with closely related species, L. excubitus of Inyo Co., and with L. Paynei of Ventura Co. No two botanists in California who have given the lupines careful study are fully in agreement as to the relationships of several of the silver-leaved bush lupines of which L. Hallii is a member. In the wild L. Hallii inhabits well-drained coarse soils and usually grows in small colonies of a few dozen plants. The bushes are only conspicuous when in flower from April to June. Their long heavy root system penetrates the ground for many feet and they are thus able to survive the long dry season. Seeds ripen in May and June but are difficult to obtain in the wild because the pods shatter at maturity and also because insects eat a large percentage.

Under cultivation L. Hallii is likely to survive for about 5 or 6 years if planted in well drained soils and not watered after the first season. Propagation is by seeds which may be planted where the plants are to remain, or by starting them in large pots. The hard seed-coats do not readily absorb moisture so that germination will be unsatisfactory unless they are given special treatment. An easy method of insuring good germination is to pour hot water (160-180 degrees F.) over the seeds, then allowing them to soak for 24 hours. They should then be planted (if in pots) in sandy soil at the rate of 3 or 4 seeds per pot. Early fall or spring plantings are best, but in either case the plants will seldom bloom until the second season. In 2 or 3 months after the seeds have been planted the seedlings should be 2 or 3 inches high and should be set out in the open ground. It is essential to transplant the seedlings early to obtain a good root system. After the plants have bloomed in the spring it is a good practice to cut back the flowering branches. This will keep the plants from getting broken from winds and will also make for better flowers the following year.

Cut flowers of this Bush Lupine are beautiful in bouquets because of their delicate colors and gracefulness, but they will not last more than a couple of days.

RANCHO SANTA ANA BOTANIC GARDEN
Of The Native Plants of California.

Established 1927

In Memory of John W. Bixby

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Purpose: A scientific institution devoted
to the growth and study of the native plants
of California for their botanical, horticult-
ural and popular features.

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Reissued without change of text, April, 1941